



Occupational Safety

MAY 8 1991

# MATERIAL SAFETY DATA SHEET

## PRODUCT

NALCO 2820 COOLING TREATMENT

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

ORIGINAL

## SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: NALCO 2820 COOLING TREATMENT

DESCRIPTION: An aqueous solution of sodium borate, sodium phosphonate, sodium molybdate, sodium hydroxide and an substituted triazole

NFPA 704M/HMIS RATING: 3/3 HEALTH 1/1 FLAMMABILITY 0/0 REACTIVITY 0 OTHER  
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

## SECTION 2 HAZARDOUS INGREDIENTS

Our hazard evaluation has identified the following chemical ingredient(s) as hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 14 for the nature of the hazard(s).

INGREDIENT(S)	CAS #	APPROX. %
Sodium hydroxide	1310-73-2	10-20
Sodium tetraborate	1330-43-4	1-10
Sodium molybdate	7631-95-0	1-10

## SECTION 3 PRECAUTIONARY LABEL INFORMATION

DANGER: Contains sodium hydroxide. Causes burns. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield, gloves and protective clothing when handling. Avoid breathing of mist. Do not take internally.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

## SECTION 4 FIRST AID INFORMATION

EYES: Immediately flush for at least 15 minutes while holding eyelids open. Call a physician at once.

SKIN: Immediately flush with water for at least 15 minutes. For a large splash, flood body under a shower. Call a physician at once.

INGESTION: Do not induce vomiting. Give water. Call a physician.

INHALATION: Remove to fresh air. Treat symptoms. Call a physician.

NOTE TO PHYSICIAN: No specific antidote is known. Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.



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## SECTION 4 FIRST AID INFORMATION

( CONTINUED )

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

## SECTION 5 HEALTH EFFECTS INFORMATION

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin

EYE CONTACT: Corrosive to the eyes with possible permanent damage depending on the length of exposure and on the first aid action given.

SKIN CONTACT: Severely irritating to skin with possible permanent damage depending on the length of exposure and on the first aid action given.

INGESTION: Can be harmful.

INHALATION: Can be corrosive to the mucous membranes and the lungs.

SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not identify any worsening of existing conditions.

## SECTION 6 TOXICOLOGY INFORMATION

TOXICITY STUDIES: No toxicity studies have been conducted on this product.

## SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

COLOR:	Clear light yellow	FORM:	Liquid
DENSITY:	11.3 lbs/gal.		
SOLUBILITY IN WATER:	Completely		
SPECIFIC GRAVITY:	1.36 @ 75 Degrees F		ASTM D-1298
pH (NEAT) =	14	pH (at 1%) = 12.3	ASTM E-70
VISCOSITY:	16 cps @ 75 Degrees F		ASTM D-2983
FREEZE POINT:	-38 Degrees F		ASTM D-1177
BOILING POINT:	234 Degrees F @ 760 mm Hg		ASTM D-86
FLASH POINT:	None (PMCC)		ASTM D-93

NOTE: These physical properties are typical values for this product.



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## SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: None (PMCC) ASTM D-93

EXTINGUISHING MEDIA: This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use water to cool containers exposed to fire.

UNUSUAL FIRE AND EXPLOSION HAZARD: May evolve NO<sub>x</sub> under fire conditions.

## SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid contact with strong acids (eg. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) which can generate heat, splattering or boiling and the release of toxic fumes.

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, CO<sub>2</sub>, NO<sub>x</sub> may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

## SECTION 10 PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION: If it is possible to generate significant levels of vapors or mists, a NIOSH approved or equivalent respirator is recommended.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure-demand, self-contained breathing apparatus is recommended.

VENTILATION: General ventilation is recommended. Additionally, local exhaust ventilation is recommended where mists or aerosols may be released.

PROTECTIVE EQUIPMENT: Wear gloves, boots, apron and a face shield with chemical splash goggles. A full slicker suit is recommended if gross exposure is possible.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

## SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (708-920-1510)

SPILL CONTROL AND RECOVERY:



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## SECTION 11 SPILL AND DISPOSAL INFORMATION

( CONTINUED )

Small liquid spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

Large liquid spills: Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

DISPOSAL: If this product becomes a waste, it meets the criteria of a hazardous waste as defined under the Resources Conservation and Recovery Act (RCRA) 40 CFR 261. Hazardous Waste D002.

As a hazardous liquid waste, it must be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains before disposal to a licensed industrial waste landfill (Hazardous Waste Treatment, Storage and Disposal facility). A hazardous liquid waste can also be incinerated in accordance with local, state, and federal regulations.

## SECTION 12 ENVIRONMENTAL INFORMATION

BIOLOGICAL OXYGEN DEMAND (5-day BOD): 606 ppm

If released into the environment, see CERCLA in Section 14.

## SECTION 13 TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME/HAZARD CODE - ALKALINE LIQUID, N.O.S.  
CORROSIVE MATERIAL NA 1719  
CONTAINS - SODIUM HYDROXIDE

## SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

### FEDERAL REGULATIONS:

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:  
Based on our hazard evaluation, the following ingredient in this product is hazardous and the reason is shown below.

Sodium hydroxide - Corrosive

Sodium hydroxide = Ceiling 2 mg/m<sup>3</sup> ACGIH/TLV  
Sodium tetraborate = TWA 1 mg/m<sup>3</sup> ACGIH/TLV



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## SECTION 14 REGULATORY INFORMATION

( CONTINUED )

Sodium molybdate (soluble, as Mo) = TWA 5 mg/m<sup>3</sup> ACGIH/TLV

Sodium hydroxide = Ceiling 2 mg/m<sup>3</sup> OSHA/PEL

Sodium tetraborate = TWA 10 mg/m<sup>3</sup> OSHA/PEL

Sodium molybdate (soluble, as Mo) = TWA 5 mg/m<sup>3</sup> OSHA/PEL

CERCLA/SUPERFUND, 40 CFR 117, 302:

This product contains sodium hydroxide, a Reportable Quantity (RQ) substance and if 5,900 pounds of product are released, it requires notification to the NATIONAL RESPONSE CENTER, WASHINGTON, D. C. (1-800-424-8802).

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986

(TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):

Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

- XX Immediate (acute) health hazard
- Delayed (chronic) health hazard
- Fire hazard
- Sudden release of pressure hazard
- Reactive hazard

Under Section 311, submittal of MSDS's or a list of product names to the local emergency planning commission, state emergency response commission and local fire department is required after October 17, 1987 if you have:

- 10,000 pounds or more of a hazardous substance, or
- 500 pounds or the threshold planning quantity, whichever is less, of an extremely hazardous substance.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):

This product does not contain ingredients (at a level of 1% or greater) on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).



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## SECTION 14 REGULATORY INFORMATION

( CONTINUED )

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:  
If this product becomes a waste, it does meet the criteria of a  
hazardous waste as defined under RCRA 40 CFR 261 (consult Section 11).

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15/  
formerly Sec. 307, 40 CFR 116/formerly Sec. 311:  
This product contains the following ingredients covered by the Clean Water Act:

Sodium hydroxide - Section 311

CLEAN AIR ACT, 40 CFR 60, SECTION 111, 40 CFR 61, SECTION 112:  
This product does not contain ingredients covered by the Clean Air Act.

### STATE REGULATIONS:

#### CALIFORNIA PROPOSITION 65:

None of the chemicals on the current Proposition 65 list are known to be  
present in this product.

#### MICHIGAN CRITICAL MATERIALS:

This product does not contain ingredients listed on the Michigan Critical  
Materials Register.

### STATE RIGHT TO KNOW LAWS:

Regulated in those states using the TLV for sodium hydroxide, sodium  
tetraborate, molybdenum-soluble compounds as a criteria for listing.

## SECTION 15 ADDITIONAL INFORMATION

None

## SECTION 16 USER'S RESPONSIBILITY

This product material safety data sheet provides health and safety  
information. The product is to be used in applications consistent with  
our product literature. Individuals handling this product should be  
informed of the recommended safety precautions and should have access  
to this information. For any other uses, exposures should be evaluated  
so that appropriate handling practices and training programs can be  
established to ensure safe workplace operations. Please consult your  
local sales representative for any further information.



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## SECTION 17 BIBLIOGRAPHY

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